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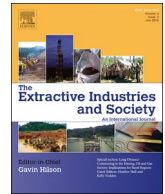
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Viewpoint

Small-scale gold mining and the COVID-19 pandemic: Conflict and cooperation in the Brazilian Amazon

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ABSTRACT

The COVID-19 pandemic exposes both conflict and cooperation in artisanal and small-scale gold mining in the Brazilian Amazon. Reporting on the experiences of artisanal and small-scale gold miners (*garimpeiros*, in Brazilian Portuguese), we show how, on the one hand, the pandemic challenges an already precarious working system that could lead *garimpeiros*, often invisible to public policies, to positions of further vulnerability; and, on the other hand, highlights the capacity of *garimpeiros* to self-organize and navigate the difficulties by finding alternative solutions to cope with the crisis. This leads us to argue that emerging strategies of cooperation, related to self-organization and communication channels have the potential to provide experiences useful for processes of conflict transformation in the post-crisis. We acknowledge that much depends on the severity of the crisis and its manifestations in the region; nevertheless, the potential for constructive outcomes from the crisis should not be disregarded.

1. Introduction

Growing attention has been paid to the impact of the Coronavirus disease 2019 (COVID-19) pandemic on gold mining in Brazil. Decrees N° 10.282 (March 25th, 2020) and N° 10.329 (April 28th, 2020) from the Federal Government and Ordinance N° 135/GM (March 28th, 2020) from the Ministry of Mines and Energy, characterized mining as an “essential” activity, guaranteeing its continuity during the pandemic. This led to heated debate in Brazil regarding whether miners should continue to work or not. Although the objective of the decrees was to ensure the continued supply of inputs and employment indispensable to the economy, there has been widespread concern that the Ministry of Mines and Energy is blind to the risk of infection associated with mining activities. In effect, it is operating in line with a general attitude within President Jair Bolsonaro's government that denies the seriousness of the pandemic. In the case of gold mining, declaring it “essential” has no foundation in the technical features of the production and instead is a political decision¹.

In Brazil, like in other gold-rich developing countries, media coverage and political attention are directed towards large-scale mining

operations (Hilson et al., 2020), leaving a big gap in understanding of artisanal and small-scale gold mining (ASGM). Important questions in the face of the COVID-19 pandemic are how communities of artisanal and small-scale gold miners (*garimpeiros* in Brazilian Portuguese) in the Brazilian Amazon are being affected by the crisis and how they act upon the consequences of the pandemic.

As ASGM is characterized by deep socio-environmental conflicts, it helps us to contextualize the answers to these questions in terms of layers that characterize these conflicts. The framework proposed by Salman et al. (2018) provides us with a logic to analyze processes of conflict through which structures are built, who are the actors involved and how they interact, where do they come from, which are their expectations and what are their strategies for organization and mobilization. This framework helps us to ‘unpack’ different dimensions of *garimpeiros*’ response to the health emergency.

2. Methods

In April and May 2020, we collected information on how the COVID-19 crisis is impacting *garimpeiros* in two Amazonian regions: one

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E-mail address: jorge.calvimontes@gmail.com (J. Calvimontes).¹ <https://observatoriadomineracao.com.br/pressionado-governo-federal-considera-mineracao-atividade-essencial-e-se-torna-cumplice-de-mineradoras/> (accessed 20 May 2020).



Fig. 1. The two study regions in the Brazilian Amazon. Lourenço in the state of Amapá, AP (left panel) and the region along the highway BR-163 (right panel). The data collection include interviews with key actors in all the main settlements from Peixoto de Azevedo (in state of Mato Grosso, MT) to Itaituba (in the state of Pará, PA), and along the *Transgarimpeira* in Tapajós. Since 2011 the authors of this communication have carried out fieldwork on ASGM in these locations: Peixoto de Azevedo and Guarantã do Norte (2016 de Theije, 2017 Massaro, 2019 Calvimontes, Araujo and Moraes), Castelo dos Sonhos, Novo Progresso, Morais Almeida (2019 Calvimontes, Araujo and Moraes), Creporizão (2011, 2012, 2016 de Theije, 2019 Calvimontes, Araujo and Moraes), Itaituba (2011, 2013, 2016 de Theije, 2019 Calvimontes, Araujo and Moraes), and Lourenço (2018, 2019, 2020 Araujo).

along the BR-163 highway from Peixoto de Azevedo, in the state of Mato Grosso (MT) to Itaituba, in the state of Pará (PA), and the other, Lourenço, in the state of Amapá (AP) (Fig. 1). We must stress that the contagion of COVID-19 in the Brazilian Amazon is rapidly spreading and the situation is under constant change, but, since the early stages of the outbreak, we recognized the urgency of gathering information to provide with an overview of how *garimpeiros* are responding to the pandemic.

COVID-19 posed methodological constraints over data collection which we solved by drawing on contacts from previous field research. In a total of eight gold mining locations, we interviewed 113 local actors directly and indirectly related to the gold mining activity, such as *garimpeiros*, owners of mines, owners of mining equipment shops, government representatives and institutional figures and other members of population of villages and towns. Among all these, we selected twenty-five actors with a key role in social transformation processes (therefore called “key actors”). One such process of change in the social arenas (Ferreira, 2012; Calvimontes and Ferreira, 2016) that compose a context for ASGM in these regions, is that *garimpeiros* have organized themselves into cooperatives and associations to have legal access to the land for gold extraction (Massaro and de Theije, 2018). Formalization entails legal, environmental, and social obstacles caused by many factors, such as *garimpeiros*’ lack of knowledge about mining regulations and restrictions, high mobility of people, lack of trust in the State, perceived unattractiveness of formalization, and/or the slow bureaucracy required (de Theije, 2020). Cooperatives and associations are an attempt to deal with some of these issues. In all of the mining communities that are part of our research and which were visited for fieldwork in 2019, different forms of organized miners’ groups are present.

The use of this quota sampling strategy allowed us to select the twenty-five key actors on the basis of specific criteria as they are the most articulate respondents and the reference figures for the local ASGM communities. Therefore, we directed the interviews for this article to presidents of cooperatives and associations of miners, other individuals whose work is related to mining such as geologists, mining engineers, staff from the offices of the mining associations, *garimpeiros* and owner of mines, and people related to *garimpeiros* that live in the

towns close to the mines, and government representatives. We used WhatsApp to perform oral and written semi-structured interviews with the twenty-five research participants and follow up interviews with four of them, making twenty-nine interviews in total over the eight locations (Fig. 1). The structure of the interviews was situational according to the position of the participant in the social arena, but always included: i) response to the COVID-19 pandemic including the measures that were introduced from the side of local, regional and federal authorities; inhabitants’ perceptions and concerns; healthcare conditions and accessibility of care; ii) how the COVID-19 crisis is impacting the ASGM activity (operation, processing and commercialization); and iii) impression of the *garimpeiros*’ response to the emergency. We carried out a content analysis, a narrative analysis and a framework analysis combining primary data from interviews and secondary data from literature as well as relevant news and official technical reports.

In the following section, our results are presented according to these topics: i) the initial response to the outbreak and the decision of the *gaimpeiros* to keep the mines in operation; ii) the risk of contagion; iii) the situation of the local healthcare system; iv) the effect of the pandemic on the price of gold locally paid to the *garimpeiros*; and v) the local collaborative response to the crisis.

3. The COVID-19 impact on ASGM

The research participants’ responses to our questions showed a high degree of similarity across the eight mining communities². The situation of communities located along the BR-163 highway (Peixoto de Azevedo-MT, Guarantã do Norte-MT, Castelo dos Sonhos-PA, Novo Progresso-PA, Morais Almeida-PA and Itaituba-PA) is more or less similar, whereas in Creporizão (PA), located at the end of the *Transgarimpeira* road, approximately 200km from the BR-163 highway, and in Lourenço (AP) the situation appears to be a little different due to the remoteness of these sites.

Despite the general concern about the pandemic, to stop the mining

² The percentages of interviewees that discussed the topics and gave similar answers for each topic are: 88%; 92%; 40%; 52%; and 48%, respectively.

was not considered to be an option. Initially, after news of the COVID-19 pandemic reached the BR-163 highway region in March, strict measures of social distancing were adopted alongside the closure of shops and services. However, the local decrees supporting these measures have since been relaxed and within two months almost all commercial activities had returned to normal, except for the obligation to wear a protective mask inside shops.

The spread of COVID-19 has strongly exposed pre-existing conflicts related to ASGM. A structural dimension central to these conflicts is the fact that *garimpeiros* belong to a heterogeneous social group that is historically vulnerable for working without formal employment contracts (de Theije, 2020). If the activity has to stop due to the pandemic, *garimpeiros* will quickly fail to meet their day-to-day financial responsibilities and survival needs. The economic motivation is, indeed, the main reason that pushes them to work and why the activity proceeds as normal even given the threat of illness due to the pandemic. As a *garimpeiro* from Lourenço declared: “the pandemic is impacting our lives in several ways. Our incomes are compromised, and this makes us more vulnerable”. In the same vein, a *garimpeiro* from Peixoto de Azevedo, in agreement with most of the interviewees, explained: “unfortunately, bills will come soon and if *garimpeiros* don't work, they don't receive anything, and this is the reason why people go back to work. Today, mines are running as normal”.

Garimpeiros' decision to keep the mines in operation, is entangled with the political situation in Brazil where the federal government publicly down-played the seriousness of the disease. One respondent from Peixoto de Azevedo explained that, locally, people were convinced that the broadcast news about the danger of COVID-19 is “only an intentional exaggeration to undermine the economy of the country”. People's need to work despite the risk of spreading the contagion is, indeed, at the center of the rhetoric used by President Bolsonaro as a justification for shunning away from public intervention in the mining sector, including lockdown measures. Since being elected to office in 2018, Bolsonaro promised to give free rein to *garimpeiros*³, and that he would open up the Amazon to commercial activities, including mining and large-scale farming (de Theije, 2020). He has repeatedly declared that the importance of the Amazon is not its nature or the indigenous inhabitants, but the “wealth underneath it”⁴. The federal government is pushing ahead with further deregulation of environmental policies, while people and media are “distracted” by the coronavirus pandemic⁵.

Regarding the risk of contagion, *garimpeiros* believe they are safer in the mining site than in town, as the president of a cooperative of *garimpeiros* in Peixoto de Azevedo, the president of the mining association in Itaituba, and an employee from the cooperative in Castelo dos Sonhos confirmed. In practice, *garimpeiros* do not leave their mines very often and as a result they have a sense of being already automatically “quarantined”. Seemingly, there were many people who went from the town to the mines precisely with the intent to isolate themselves. Nevertheless, the president of one cooperative of Peixoto de Azevedo, highly recommended to follow the official measures and in Peixoto de Azevedo it was reported that in some mines the activity had been temporally stopped and the owner of the mine had sent everyone back to their houses in the town so as not to increase the risk of contagion due to the excess of crowding in the living quarters on the mining site.

While there is fear over the spread of the virus, *garimpeiros* believe they are taking the necessary precautions in relation to the pandemic.

The president of the association in Itaituba argued that *garimpeiros* are very well informed, as they all have daily access to information, official bulletins and news through internet. Usually, the president and the associates rely on WhatsApp groups to exchange information about gold prices, job opportunities, and news. Today, these groups appear to be very useful to consolidate their network, organize themselves, and share information about the pandemic. In fact, some local cooperatives are publishing sporadic updates and news on their social networks' pages and websites. Nevertheless, there is a general concern about the precariousness of healthcare services in the region. An employee at the cooperative in Morais Almeida reported that if the contagion spreads, the infrastructural capacity will not be enough. Specifically, she expressed serious concern when referring to the *garimpeiros*: “the moment this virus arrives at the mines it will be terrible, certainly a lot of people will die without proper care”. In her view, the local health system lacks proper infrastructure to face the pandemic. In Lourenço, a *garimpeiro* pointed out that their, “little clinic is not sufficient for the local health demand, we don't have any ambulance or any instrument to prevent the spread of the virus”.

Up to the time of writing, in June 2020, the sale of gold was hardly affected by the pandemic along the BR-163 highway. Some gold retailers work with reduced hours and with appropriate precautions, such as masks and social distancing measures to avoid people crowding into the shops but nevertheless the price has been stable. In contrast, in more remote areas, such as Creporizão and Lourenço, there has been a decrease in the price of gold paid to the *garimpeiros* despite buoyant world market prices. In these isolated regions, prior to COVID-19 it was common for the price of gold to be lower than the international stock market price paid in the main cities of the state or in cities with easier access, such as those along the BR-163 highway. In the context of the pandemic crisis, this reduction increased. In Lourenço, for example, *garimpeiros* had only two options to sell their gold, one at the local gold shop and one at the gold retailer in the capital of the state at nearly 400 km distance for a slightly higher price. Due to mobility restriction measures, *garimpeiros* do not have the latter alternative anymore and they can only sell their gold in the local shop. This practice reinforces the vulnerable position of *garimpeiros* that rely on gold mining for their everyday subsistence.

Many *garimpeiros* believe that gold buyers are taking advantage of the pandemic to increase their profit. Indeed, this is a widespread perception around the world: the fatal combination of increased gold prices, supply chain limitations and lack of cash has widened the difference between local and global gold prices. Geenen and Verbrugge (2020) report that in Burkina Faso, Sierra Leone and Peru, this difference reaches 40% and in parts of the Philippines, it is over 60%. In Brazil, according to our research participants, retailers are paying between 180 and 210 R\$ / g [around 28–33 GBP] to the *garimpeiros* when the price of gold is 280 R\$ / g [around 43 GBP⁶] which is a difference of more than 35% and 25%, respectively. According to one *garimpeiro* in Lourenço, most gold retailers are stalling and accumulating gold until prices rise further: “most of gold retailers are paralyzing [the market]. We clearly perceive that they are taking advantage of the situation”.

Although the pandemic has exposed pre-existing conflict such as between the *garimpeiros* and the gold buyers, it also has stimulated local collaborative response and revealed the positive power of collective actions of self-organization and cooperation. Far from being solely operational and administrative organizations, cooperatives and associations constitute a network that helps creating access to supports for *garimpeiros*. One of the local cooperatives in Peixoto de Azevedo started an emergency distribution program of food supplies to *garimpeiros* and their families, and an informative campaign “*Campanha de combate ao*

³ <https://noticias.uol.com.br/politica/ultimas-noticias/2019/10/03/bolsonaro-promete-carta-branca-a-garimpeiros-e-cita-roubo-de-ouro-em-sp.htm> (accessed 25 May 2020).

⁴ <https://www.nytimes.com/2020/04/19/world/americas/bolsonaro-brazil-amazon-indigenous.html> (accessed 28 May 2020).

⁵ <https://www.reuters.com/article/us-brazil-politics-environment/brazil-minister-calls-for-environmental-deregulation-while-public-distracted-by-covid-idUSKBN22Y30Y> (accessed 28 May 2020).

⁶ Available at <https://goldprice.org/gold-price-brazil.html> (accessed 8 April 2020).

COVID-19” to promote the adoption of health measures. According to some representatives of local cooperatives, in Lourenço, *garimpeiros* who are still actively working, asked the municipality to guarantee their safety. The municipality in collaboration with the local healthcare service, then started to perform health controls of all people in all vehicles at the entrance and exit of Lourenço. Moreover, from his own initiative, the owner of an underground mine established a protocol of disinfection at the control stop at the entrance of the mine. Such local networks connecting *garimpeiros*, through their cooperatives and associations, with the local public authorities, represent a crucial element for the survival of these communities. Unfortunately, despite the efforts and the commitment from the local community, the latest update from the *garimpeiros*, in early June, reports that COVID-19 is rapidly spreading in Lourenço.

4. Discussion

In this contribution, we took a little peek at the reception of COVID-19 in ASGM communities in the Brazilian Amazon. Mining communities generally have to make it without good health facilities. Self-organization then turns out to be a way of mobilizing the public authorities to provide services. The associations in the sector also function as an information channel and in some cases with food for members who have been left without income.

The COVID-19 pandemic makes explicit inequalities that arise in ASGM. Pre-existing conflicts underpinned by these inequalities are being heightened with an accelerated speed and deepened intensity, highlighting how conflict is multilayered (Salman et al., 2018). Conflicts in ASGM mainly regards social and economic fragility, high level of informal and illegal practices, precarious health and working conditions, and negative socio-environmental impacts (World Bank, 2019). The failure of the state to give support to the mining communities makes them even more vulnerable in the context of the pandemic.

On the one side, the COVID-19 pandemic adds more challenges to an already precarious sector, that could lead these *garimpeiros*, often invisible to public policies, to positions of further social and economic vulnerability. On the other side, the pandemic highlights the capacity of *garimpeiros* to self-organize and navigate the difficulties by finding alternative solutions. As often occurs in situations of conflict, actors discover new organization and mobilization strategies to cope with periods of crisis, revealing the dynamics of cooperation embedded in these processes (Ferreira et al., 2007; Fisher et al., 2018). Cooperatives and associations emerged to achieve the longed-for formalization and legalization of the ASGM activity. Today, in the context of COVID-19, they widen their role in helping local communities to face the pandemic.

Strategies of self-organization and communication channels have the potential to provide experiences useful for conflict transformation processes in the post-crisis. Key actors are working to improve the performance of the miners' organizations in achieving their original goals, such as those related to the formalization process. We hope that the pandemic crisis, despite the awful death toll in Brazil, catalyzes this improvement. Conversely, the position of government Bolsonaro in relation to mining and conservation of the Amazon complicates the ability of mining actors to engage in these processes of transformation.

Scholars agree that once the pandemic “turbulence” is passed, markets will no longer be the same and large-scale mining companies should start preparing for change (Bainton et al., 2020; Laing, 2020). Others predict that relationships between extractive industries and local communities will undergo deep changes (Bernauer and Slowey, 2020).

Moreover, we suggest that a reassessment of the ASGM sector in the post-pandemic future requires further investigation of new measures regarding employee healthcare, and, of course, environmental and social sustainability.

Declarations of Competing Interest

None.

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